Meeting with Performance Track Members and EPA's Office of Water: Summary of Discussion about Water Issues and Incentives September 15, 2004

Introductions -- Jay Benforado (facilitator), Director, National Center for Environmental Innovation

Introductory Remarks -- Rich McKeown, Chief of Staff, Office of the Administrator

Shared story about Administrator Leavitt meeting with Bill Ruckleshaus. In the early days of EPA, environmentalism thought by many industry folks to be a passing fad. Ethics have changed and EPA is now able to bring environmental-minded industry representatives to the table. This meeting is a case in point. Administrator Leavitt supports Performance Track.

Introductory Remarks -- Jessica Furey, Associate Administrator, Office of Policy, Economics, and Innovation

This meeting is an opportunity to directly hear from members and national water program directors. We are thankful for their participation. Last spring (2003), EPA's program directors were asked to identify incentives that could be developed for Performance Track facilities. This meeting was formed at OW's request to hear from members their ideas for incentives.

Performance Track can help achieve Agency's environmental goals. For example, Performance Track encourages facilities to improve environmental performance through their commitments. In addition, we are considering developing national challenge commitments focused on national environmental priorities – they would count as two commitments, provided a threshold level of environmental improvement is achieved.

Introductory Remarks -- Mike Shapiro, Deputy Assistant Administrator

Performance Track offers opportunity for Office of Water to advance some of its work. Thrilled to have a meeting like this – put heads together to use Performance Track framework in moving forward towards water goals and plans.

The Office of Water (OW) is focusing on end results – how many wetlands protected, ecosystems being cleaned up (not number of regulations, etc.). Need collaborative efforts to achieve goals – Performance Track is a premier collaborative program.

Provided data on facility water-related improvements in 2002 from Performance Track facilities. In 2002, 15 facilities reduced their toxic discharges by a total of 1,300 tons; 76 facilities reduced their water use by a total of 300 million gallons; and 21 facilities preserved or restored over 1,750 acres of habitat.

Introduced other senior Office of Water office directors who will discuss their programs.

OW is moving forward to develop voluntary collaborative program in water conservation.

EPA initiatives to protect ecosystems while enhancing outdoor recreation – e.g., Sustainable Slopes work with National Ski Area Association.

The Office of Water has been a leader in promoting use of environmental management systems – focusing on public sector application – local governments – issued guidance document for management of wastewater treatment plants.

Permitting -- Linda Boornazian, Director, Water Permits Division:

Top-of-the-pile permitting ranked as #1 incentive by PTPA survey respondents. OW is looking at permitting program – Permitting for Environmental Results (PER) Strategy. Coming to closure on permit integrity portion – we will have summary of each of the States and EPA Regions and how many permitting applications are outstanding and backlogged – will make all of this available on the Web.

Information will be used as a baseline to figure out where to go from here. Overall, focusing on results and watershed approach – also on how to make processes more efficient and to streamline permitting process. Right now finishing up the 'where are we today'. Collecting information to help us learn why it may take long time to reissue a permit.

Expedited permits – expired permits – want to prioritize these. Looking for feedback and want to look at lessons learned from some States that have tried expedited permitting. Map out process and time needed. If facilities could submit more information in their applications, it would help. Permit applications are often incomplete. States want to know who the Performance Track facilities are and they want to work with them to facilitate expedited permits.

According to a recent Pacific Institute research paper, 36 States have said that they will face water shortages. Business related issues associated with this. Jim Hanlon, Director of the Office of Wastewater Management, is working on it today and that's why he cannot be here. This is a major priority.

Sustainable infrastructure. Our infrastructure is aging and the cost to replace it is large. Encouraging more efficiency, full cost pricing, prioritize on watershed basis. State revolving funds/loans. Membership in Performance Track can be a factor in considering loans and funding.

Permitting Discussion:

Member: Have you looked at E-tools to improve efficiency (e.g., electronic drivers' license system)? Also, this would allow industry to see where EPA is going and where applications are in the process.

Linda: Yes, we are developing E-tools under PER. New PCS will be developed in about 2 years. Also developing permit writer tool. Each State has own permit application forms.

Member: A key to implementing these incentives is working with States. Linda mentioned she recently met with 12 States. Which States and what is going on? What's in it for the States? Why do they care?

Linda: Met with ASIWPCA's PER workgroup, comprised of 12 States. Performance Track was an agenda item. Looking at which permits are coming up for reissuance. States will work with EPA because their Governors are interested in supporting their businesses. States do want to know more about Performance Track and why these facilities are in the program.

Member: Industry is becoming more competitive. They are using business efficiency models, such as six sigma and lean concepts. Can they apply lean concepts to permitting systems? Electronic on-line systems to improve efficiency.

Linda: Permits are taking 1-20 years to reissue. Want to find out why permits are taking a long time. We are prioritizing overall problems now and solutions will be coming.

OPEI: EPA has a Lean initiative underway and lessons learned may transfer to OW efforts to examine and enhance permitting efficiencies.

Member: Received information about one of our legacy permits. A 21 year process that is ongoing. A concern is continuity of staff -- people issue permits -- spend a year or two educating permit writers and then they leave. The process is open to challenge, perhaps too open. Anyone can challenge and send the process into another year or two of debate and additional review time.

Member: Took five years to get someone to reissue permits. Communication would have helped to expedite the review. Don't oversimplify things in efforts to streamline, and be conservative in estimates. Static modeling may not be as useful as dynamic modeling.

Member: Leadership program being piloted where facility looks at affecting change and improving the process. Senior management doesn't want to hear that it takes a year to get a permit, especially at the speed of business. An unsure timeline handicaps business decisions. Six months would be great.

Member: Permit life varies inconsistently. Could permit life be extended? Performance Track facilities could get standard length. Guidance to permit writers would be helpful.

Member: Have lost customers to Mexico because of delays in permitting. They have problem with owner versus operator responsibility. In Texas, permits being held up by State because it wants to focus on the owner of the facility.

Member: Have a number of facilities waiting for modifications and renewals -- 12 years in some cases. PCS system shows violations (e.g., administrative errors) for some of their permits that don't reflect facility performance, and this what the public sees. Efficiency should be looked at beyond the permitting process -- monitoring and reporting take lots of effort. Reduced monitoring and reporting is needed. Would be happy to pilot modifications to their permits.

Member: In semiconductor field, speed is everything. Permit delays lost business to overseas. Business processes change every 3-8 years. Heavy competitive pressure to move faster.

Member: Certainty and predictability are very important. Even if it takes a long time, predictability would be helpful. Give them a schedule to live by. This doesn't exist now.

Member: State revolving funds should be available for non-POTW use. Are they available only to public sector? Facilities in Europe can get grants and government funding for water conservation and water reuse. EPA could encourage through funding mechanisms.

Office of Water: Yes and no. Funds may be expanded to private parties.

Member: Water is too cheap. There is no incentive to conserve. Water pricing is important. The public sector hasn't done a good job in pricing water.

Office of Water: We are very aware of the publicly-owned water infrastructure challenge. One of the Office of Water's goals is to look at pricing and valuing water. This is something the Office of Water is very interested in.

Member: Sometimes their permits include concentration and mass limits. We are trying to conserve water. Sometimes water conservation may conflict with meeting pollutant concentration limits. Flexibility is important. There is some payback to conserving water but not much. By saving water, we also save chemicals and heat. But there are tradeoffs. Need to make decisions about where to spend money – e.g., water conservation or air emissions controls.

Member: Please think of new ways to permit. Can we reduce frequency of DMRs? Many times our water discharges show no pollutants. Need to look into ground water recharge.

Linda: Progress has been made. Since 1999, we now have 85% of permits current. Also, we are using general permits to help streamline the process. Have put 250 of them up on the internet. Want to do more electronic DMRs. The barrier is the electronic signature. Mass versus concentration limits is tricky.

Reducing Risk Strategically -- Geoff Grubbs, Director, Office of Science and Technology:

Need Effluent Guidelines Plan every two years. 56 industry categories have been regulated; review them annually and publish plan every two years. Also need to consider unregulated categories.

Have developed a risk-based approach. Consider human health and aquatic health. Cost also looked at. Consider giving credit for voluntary pollutant reductions. In 2004 plan, initially included petroleum refineries. Chose not to go forward because TRI data weren't considered reliable. Will look at vinyl chloride under organic chemicals. Will also look at airport deicing and drinking water treatment facilities.

Industrial laundries have achieved approximately 50 percent removal of the effluent pollutant toxic pounds estimated by EPA if categorical pretreatment standards had been issued. These removals were achieved while also reducing energy, wash chemicals, and water use. EPA decided not to regulate this industry because the low amounts of toxic pollutant loadings by facilities on a national average basis did not warrant categorical standards for everyone.

EPA wants verifiable and specific data on reductions.

Voluntary actions may be possible for the new rules – vinyl choride and chlor-alkali.

Next plan is for 2006. This is the key opportunity.

Trying to make development of water quality standards more certain. Sometimes trump the effluent guidelines efforts/technologies. States set the water quality standards and EPA approves. Bottom-up process. Working to streamline this process.

Take home message:

- For technology-based minimums:
 - Voluntary action considered Immediate opportunities in vinyl chloride/chor-alkali manufacturing and airport deicing Key opportunity is 2006 plan.
- For water quality standards:

Specify highest attainable use; States & tribes lead

Uncertainty and delays in developing water quality standards impede Performance Track facilities in setting water-related commitments

For more information, go to www.epa.gov/waterscience/standards/strategy.

Reducing Risk Strategically Discussion:

Member: Categorical dischargers want to ship their wastewater to their facility for treatment or a wastewater treatment facility, but they would need a RCRA permit because the wastewater would become considered by EPA as a hazardous waste. Instead of being treated as a wastewater, it is being injected into deep-well. Why can't the Clean Water Act regulate this wastewater?

Member: Interested in finding out the criteria used for going with voluntary program instead of effluent guidelines, as they get into new chemicals. How can companies be prepared? How is success defined? How are decisions made so that industry can start to plan and make programs, etc.?

Geoff: We haven't defined the criteria. Need clear rationale. Very interested in working on this with Performance Track members.

Member: Voluntary reductions – vinyl chloride and chlor-alkali – look at the plants that have accomplished reductions and see what they did and replicate it.

Geoff: Yes, we are trying to encourage it through the trade associations.

Member: Supportive of risk-based approach. TRI is helpful. Highest attainable use of water is very site specific. Nutrient standards are important.

Protecting Ecosystems -- Diane Regas, Director, Office of Wetlands, Oceans, and Watersheds:

Environmental Goals – watershed meeting environmental water quality standards, protecting wetlands, and protecting ecosystems.

Opportunities to become masters of own fate. Ask whether water impaired or not. Need leadership at local level.

Achieving goals – dependent on decisions made at local levels and community leaders. Interested in what you have to say that will help us achieve goals. Will talk about:

- 1. Opportunities to become master of your own fate
- 2. Helping us identify barriers
- 3. How to avoid environmental problems.

Master of your own fate. TMDL – pollution budgets, threshold levels for wastewater discharges into water resource. Looking for leadership. If faced with TMDL that is not due for awhile, you can solve the problem at a community level. Problem can be solved to obviate need for TMDL or you can set your own TMDLs and implementation plan. Third parties can draft TMDLs. In waters where TMDLs developed but not yet implemented, local action would help.

If your waters meet water quality standards, need to focus on keeping that status.

Help EPA identify and address barriers. This group is well qualified to help us identify things that we do that might not be the best thing for the environment. Folks have brought some ideas that have resulted in changes. Water quality trading is one example. 303d listing process – OW is trying to avoid a new greenfield process.

Wetlands mitigation banking.

Avoiding environmental problems, e.g., low impact development. Low impact development is something we are interested in. Also, wetland restoration. Gillette has been a leader in this area.

Protecting Ecosystems Discussion:

Member: TMDLs. We found a need to promote proactive actions while we wait for TMDLs to be developed. Folks don't want to reduce until they see what the their waste load allocations will be. No incentive for early action. Need to look at nonpoint sources. Waste load allocations too often fall on point source permits even when nonpoint sources are majority of pollutant loadings.

Member: There is a disincentive for early action.

Member: Process for TMDLs has been cumbersome.

Member: They have created wetlands, but there are problems – e.g., commitment to complete the job. Additional problems are changing expectations, local politics, and who gets rewarded.

Member: Wetlands mitigation banks. A lot of banks are proposed. No predictability. Agencies are discouraging banking. Have to mitigate hundreds of miles from site sometimes. Permitting is also very unpredictable. The problem with a lot of projects is funding.

Diane: We will send out information on leveraging funds to support wetlands mitigation banks.

Member: A multi-State process is a real change that adds delay in getting permits.

Member: Water quality standards are important. Data quality of DMRs and monitoring quality are important when TMDLs are developed. Sound science needs to be used in determining waste load allocations.

Diane: Watershed testing by facilities may be an option for Performance Track facilities. Can we trade effluent for ambient monitoring? How can OW encourage Performance Track facilities to collect and share these data? Have Performance Track facilities faced barriers?

Member: We are open to this type of trade.

Member: We are resistant to share data because no good deed goes unpunished. If we do testing, someone will question the quality of the data and motives. Maybe we could put money we would have spent on permit monitoring into a fund and let EPA or States do the actual testing and collect the data.

Member: There is a wealth of data and there are sources of data that are not being used. My facility is collecting data for a lot of different purposes and they could make it available to EPA. Facilities, communities, NGOs, and States all do testing and it isn't getting used. EPA is not taking advantage of these data. The question is how to get the data into the right hands.

Member: We would like to know more about the watersheds that our facilities are in and we want to know what EPA knows and what the NGOs know. Maybe there is a way we can map it together.

Diane: Encouraged by the enthusiasm for increased information. We want to keep in touch with Performance Track facilities via the PT staff.

Water Incentives for Performance Track Facilities – Sarah Ethier, Director, Environmental Operations and Energy Management, 3M; Chair, Performance Track Participants Association's Incentives Workgroup:

Features of good incentives – help environment and help facilities. Need to reach small and medium size facilities. Traditional regulations don't reach some sectors well. Incentives can reach some of these.

"... no one is here to get away with not doing something that they are supposed to do. It is to improve the environment first and foremost."

Non-regulatory incentives – priority permitting, reduced inspection priority, faster permitting, preferred buying list for members, flexibility, greater access to regulatory officials, publicity.

PTPA conference in Baltimore (April 2004) discussed incentives. Expedited permitting, reduced inspection, encourage EPA innovative programs, rollover permits, work with States, etc.

Expedited permitting. Reduced monitoring frequency. Pretreatment. Specific water incentive ideas.

Many incentives have been implemented. Performance Track members want EPA to think outside the box. Identify an EPA water point-of-contact. Use at discretion of Performance Track facility.

Water Incentives Discussion:

Member: We have already developed incentive ideas. What is the best process for moving these forward? At Headquarters? At Regional level? At State level? What do we as members need to do given many of these incentives are implemented at the State level? What is the permit checklist? How do we do it? What is the timeline, etc.?

Member: Focus on business case and processes that affect competitive advantage. Apply priority to competitive advantage.

Member: These meetings are a great benefit for being in Performance Track.

Member: A big disconnect is between EPA Headquarters, Regions, and States. A contact person is one way to speed up the process. A Regional liason/ombudsman/advocate is one way to speed up the process for the facilities trying to change permits.

Linda: Rolling over permits – permits issued every 5 years based on statute. 'no significant change" might be an option depending on the permit. Roll over the permits, including bundling rollover permits for regulatory action. Look to pretreatment streamlining. Also, some things are required to be monitored for in the regulations, depending on category.

Mike: Permit writers need incentives too. They are overworked and this priority coming from the top down might not be well-received. There are things we can do to reward the permit writers.

Member: Can you measure the speed of priority permits?

Linda: What is an acceptable time period? Is 12 months acceptable? 6 months is hard. Will need to negotiate with States this summer. Need some advance notice on which permits will need some extra attention for expedited permitting. Facilities need to give us some advance notice.

Member: There are no normal renewal periods.

Linda: Permit modification focuses on what is being changed; but it needs to be done before permit expires. EPA is not driving this; need buy-in and understanding of the value of Performance Track. Permits should be right.

Member: Yes, and as a member of industry, we need to make sure our applications are complete and correct so that we demonstrate this leadership.

Member: Inspector came to Performance Track facility knowing it was a Performance Track member. They said that they had to inspect anyway because they are required to inspect every major facility every so often. What happened to low priority for routine inspection? Message is not being relayed.

Member: Have heard that EPA requires inspectors to inspect 20% of facilities each year and 100% every five years. Communications in EPA is an issue. Word not getting out to State inspectors.

Linda: It is a goal that every major permit is inspected each year and every minor permit is inspected every five years. But there is flexibility. Inspectors can do some trading off. They are allowed to trade off two minors for a major. Message needs to get down to State enforcement managers. The PER Strategy includes inspection.

Member: Some States say that because they don't have a companion Performance Track program, they don't see the need to follow through on the low priority for routine inspection. Also, some State grants require an inspection. PPAs should reflect Performance Track.

Linda: We can put Performance Track in the PPA draft guidance.

EPA Region 3: In Region 3, we are encouraging States to put Performance Track in PPAs – they consider Performance Track membership before they decide which facilities to inspect.

Member: We had an inspector at our facility and called the Regional coordinator, and within 15 minutes the inspector was called and told to leave the facility.

Member: Inspectors always say that they have too many inspections. Priority should be based on risk and Performance Track should be considered a low risk.

Member: The issue is the number of facilities inspected; there should be consideration of the risk from the facility; Performance Track facilities should be a low risk; have high, medium, and low risk and assign points to each level. The focus should not be on the number of facilities inspected – i.e., not on "bean counting".

Member: Inspectors need to be informed so that they know if a facility is a Performance Track member. Add a flag in the database.

Member: Rate the facilities. For example, if there is a numbers requirement, maybe five Performance Track facilities are equivalent to one non-Performance Track facility. Need to disincentivize inspections of Performance Track facilities.

Office of Water: This is an OECA question; you should follow-up with them.

OPEI: Some inspectors might be more inclined to visit Performance Track facilities because they are easier to inspect and everything is in order. How to identify high to low risk facilities?

Member: Inspectors could be given list of facilities in Performance Track.

OPEI: Flags are in system. Workshops are given to inspectors. The word is given out.

OW: Look at which permits are a higher priority.

Member: What are the States' thoughts? Missing party here is the States. How do they feel about these incentives?

Linda: It is definitely a challenge. They want more flexibility and less requirements in their activities. Working with OECA to define major and minor. They have a goal to inspect majors every year and minors every five years. They recognize the critical need to get States on board.

Member: Need to send the list of Performance Track facilities to inspectors.

Member: Can States pilot some prioritization efforts?

Jay: Which States want to pilot some prioritization efforts?

Member: Multi-media inspections are very expensive and resource-intensive for EPA and facilities.

Member: The question may be timing – the facility may be accepted into Performance Track weeks or months after the inspection plans are drawn up or the inspection is scheduled months before the facility becomes a member of Performance Track. It happens. Regions send out emails to managers letting them know about new members.

Jay: States could get invited into the process to develop models of expedited permitting and low inspection priority.

Member: Inspections are not always unwelcome. What is the objective of the inspection? Maybe for Performance Track facilities, identify "issue" rather than a "violation", and identify "areas of attention". The purpose of the inspection is to find something wrong. We need to alter the objective of inspections. It helps the facility if the inspector talks with them. Inspections can raise awareness and sometime identify real problems. Maybe Performance Track inspections could have a different focus. These could focus more on identifying real environmental priorities and new areas of focus.

Jay: OECA is not here to discuss these issues. However, we have OECA's support.

Member: One way to help permitting is to shift resources from enforcement to permitting.

Mike: Air program has built flexibilities in at front end of air permit, so that discussions happen before the permit is issued, everyone is on board, and the modifications are essentially pre-

approved as long as the same level of treatment occurs on the output side. Can the water program do this?

Member: In the air program, there is a "cap" on emissions and we can make modifications such that we stay within the cap. The maximum amount (concentration) of discharge is in the permit and in the meantime they can make changes.

Member: Time is a commodity in business. Accelerated product cycles are a disconnect with the typical schedules associated with permits. The flexible permit cap is great – flexibility that saves time.

Linda: With wastewater permits, there are effluent guideline limits and water quality-based limits.

Member: NPDES is somewhat like a cap. You can make changes as long as you stay within permit limits. This is a good thing about NPDES. The air program is not like this. The air program requires pre-approval for changes even if it results in lower emissions. Facilities will send a notice to permitting authority about the change and they will often approve it.

Member: What about reductions in monitoring and reporting frequency?

Member: Electronic signature seems to be an ongoing issue, but there are opportunities beyond this. Right now, we fill out hard copies of forms that we need to get from the State. One State is allowing us to fill out an electronic version and print it and send it in.

Linda: We want to streamline forms and make them more useable. Or should we change the forms to help meet our goals? Some forms don't have the information they need; this ties into expedited permitting. Revising the forms is a big regulatory process.

Member: Can we talk about reporting?

Member: At NASA, everything is electronic. It is strange that we have to then take that data and write in on a hard copy form and send it in to EPA where it then gets entered into a database.

Member: Tell us what they need the first time.

Member: Don't ask for data they won't use.

Member: Can Performance Track facilities hold their monitoring results and only send them in quarterly or annually?

Member: In pretreatment, results are sent in quarterly.

Member: Or if results were below limits, keep the records, and only report it if limit was exceeded? This would save EPA on entering all of this data?

Member: EPA needs more ambient data and money is being wasted on these other areas. Why?

Mike: Yes, we need ambient data. It is a major bottleneck to assessing water quality nationally. Can Performance Track facilities help us with this? We should explore. Monitoring is an issue for direct dischargers.

Member: We are required to test for and report on chemicals that we don't even use, including every time they are "non-detect."

Member: The intent of Performance Track is to look for long-term objectives, but need to also look at short-term objectives.

Member: PTPA has solicited success stories from members. In EPA Region 2, we were able to solve a problem of identifying the value to a facility for being a member of Performance Track. These will get publicized. Please tell us your success stories.

Member: Performance Track offers a universe of companies/facilities to pilot test some of these ideas.

Member: We need to put a priority on getting something done.

Member: A number of our permits had provisions for implementing BMPs in lieu of direct discharge monitoring. Now looks like some of the EPA Regions are changing back to requiring monitoring. There are areas where BMPs would provide good flexibility for PT members.

EPA: OECA tried to do electronic signature and DOJ said that they needed original signature. They may be going forward with some sort of ID "card."

OPEI: OECA is considering development of a generic system for DMR electronic reporting by 2006. States need to have the infrastructure though. Performance Track facilities could help to design and test the system. We are looking at reduced NPDES monitoring and reporting for Performance Track facilities. We have a list of each Performance Track facility's NPDES permit expiration date. EPA has developed guidance for reducing facility monitoring and reporting frequency, including monitoring for pollutants not present. It's unclear whether States have implemented these measures.

Member: EPA has multiple silos; there are far more problems with the air program. We should talk with EPA programs and OECA together.

Member: Thanks to everyone. In summary for incentives, there is an interest in longer term, substantive changes. Some pilot projects may be needed to identify solutions.

- We also need to follow up and get more information on the non-detect issue.
- We have gone through a 3-year process developing these ideas. We don't need to go out and get more ideas. We need to implement.
- Reduced inspection the issue is how to implement on Regional and State level; needs better communication to inspectors.

- Priority permitting needs to be followed up on; identify more ways to implement it; maybe need to discuss with ECOS and MSWG.
- Flexible permit cap concept is a good new idea for water; take best practices from other programs.

OPEI: Agency is providing resources for incentives and it is a priority.

Mike: Need to identify a couple of States to work with and develop a model.

Jay: Asked for key points.

Pilot projects with EPA.

Smaller meetings for specific topics.

Pretreatment.

Circular meeting table.

Include States and local permitting/pretreatment.

Need to have meeting like this for air and waste; and then smaller meeting for overlapping issues - i.e., OECA.

More industry people.

Less process more progress.

Be specific; organize leadership; less is more.

We all need to be involved and work with the States and PTPA.

It is good to set your priorities, which will structure our internal discussions.

Need smaller workgroups on 2-3 issues.

Appreciate open dialogue.

States.

Pilot concept and paperless reporting is way to go.

Get something done; it doesn't have to be perfect.

Incentives will help us sell Performance Track to our facilities; facilities need to see more benefit.

Interested in follow up to meeting.

Meeting shows the value of membership; keeps communication going.

Get incentives for the States and permit writers to participate.

Meeting like this for air issues and waste issues.

Follow-up on this meeting after get with States and OECA.

Need enforcement people at table.

Follow-up and other meetings.

Multimedia meeting might be next.

This meeting is a first step.

Incentives are important for growing membership and selling to ACC members.

Need larger name tags.

OECA should be at the table.

Michigan is implementing a paperless system.

Thanks to everyone.

Meeting Attendees

Performance Track Members:

Sara Ethier, 3M Terry Persaud, Marathon Ashland Petroleum

Ronald Meissen, Baxter Healthcare Michael Green, NASA

Dave Matthews, Bristol Myers Squibb Maryalice Fischer, National Energy & Gas Transmission
Peter Ruffier, City of Eugene, Oregon Anne Vogel-Marr, National Energy & Gas Transmission

Joseph Amos, Dow West Virginia Operations Patricia Carrier, New Hampshire Ball Bearings

Althea Haylett, E.I. DuPont de Nemours and Co. Elizabeth Girardi-Schoen, Pfizer

Ken Wood, E.I. DuPont de Nemours and Co.

Jeffrey Shumaker, International Paper
Stan Kaczmarek, Johnson & Johnson

Scott Aspelin, Port of Houston Authority
Laura Fiffick, Port of Houston Authority
Barbara Schulze, Rohm and Haas

David Gunnarson, Lockheed Martin Steven Woodbury, U.S. Department of Energy

Sam George, Madison Chemical Company Douglas Boyea, U.S. Steel

Robert Elam, American Chemistry Council
Amy Duvall, American Chemistry Council
Eric Clark, Synthetic Organic Chemical Manufacturers Assoc.

Dave Darling, National Paint and Coatings Assoc. Robert Johnson, Wildlife Habitat Council

EPA Regions:

Anthony Cancro, EPA Region 2 Marie Holman, EPA Region 3

Marcia Seidner, EPA Region 2

EPA Office of Water:

Mike ShapiroJames HorneGeoff GrubbsSteve AllbeeDiane RegasJoe McNealyLinda BoornazianPravin RanaPamela BarrStephanie Thornton

EPA Office of the Administrator:

Rich McKeown

EPA Office of Policy, Economics, and Innovation:

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Chuck KentRoberta LaneDan FiorinoHetal MehtaDavid GuestRobert SachsAndy TeplitzkyKristinn VazquezJohn FosterShannon KennyChad CarboneRobin Kime

EPA Contractors:

Adam Burke, Abt Associates Rebecca LePrell, ICF

List of Acronyms

ACC American Chemistry Council

ASIWPCA Association of State and Interstate Water Pollution Control Administrators

BMP Best management practice
DMR Discharge monitoring report
U.S. Department of Justice

ECOS Environmental Council of the States
EPA U.S. Environmental Protection Agency

MSWG Multi-State Working Group

NASA National Aeronautics and Space Administration

NGO Non-governmental organization

NPDES National Pollutant Discharge Elimination System

OECA EPA's Office of Enforcement and Compliance Assurance OPEI EPA's Office of Policy, Economics, and Innovation

OW EPA's Office of Water
PCS Permit Compliance System

PER Permitting for Environmental Results
POTW Publicly owned treatment works
PPA Performance Partnership Agreement

PT Performance Track program

PTPA Performance Track Participants Association RCRA Resource Conservation and Recovery Act

TMDL Total maximum daily load TRI Toxics release inventory